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EXAMINER

CHAKOUR, ISSAM

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,149	Applicant(s) FREY ET AL.	
	Examiner ISSAM CHAKOUR	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-27, 29, and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office Action is responsive to amendments and argument made in the remarks filed on 10/29/2009. The applicant amended claim 12 and 29.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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1. Claims 12-14 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated over Ghosh (USPPA 2003/0161343) in view of Lee et al (Lee, USPPA 2009/0093243).

2. Regarding claims 12 and 29, Ghosh teaches a method and a corresponding radio communication system for transmitting data in a radio communications system, comprising: providing a common channel allocated concurrently (e.g., dedicated shared channel or DSCH) to a plurality of subscribers for data transmission between a base station and subscriber stations of the subscribers (See [0016]); taking measurements of transmission quality of the common channel (e.g., measurement report such as measuring QoS or channel strength) for each of the subscriber stations and making them available to the base station (See [0014]); and transmitting from the base station (e.g. Node B) a first message to a controlling radio network controller allocated to the base station (See [0026] lines 1-5 and figure 1). Ghosh does not expressly teach transmitting from the base station a first message to a controlling radio network controller allocated to the base station when the measurements show that the transmission quality does not meet a defined criterion, the first message containing information about the transmission quality and an identifier of at least one particular subscriber station for which the measurements indicated that the transmission quality meets a second criterion. However, in the same field of endeavor Lee discloses transmitting from the base station a first message (e.g. RL parameter update request message) to a controlling radio network controller allocated to the base station (See [0146] lines 7-10, [0054], and [0147] lines 2-3) when the measurements show that the transmission quality does not meet a defined criterion (e.g. threshold corresponding to lower than a good channel quality, see [0164] lines 1-5, note that

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the change in radio link is radio channel state or condition see [0048] lines 1-5), the first message containing information about the transmission quality (See [0047]) and an identifier of at least one particular subscriber station for which (See [0008], lines 5-8, note that the RL parameter or the first message maybe HS-SCCH, see also [0030] lines 1-6) the measurements indicated that the transmission quality meets a second criterion (e.g. bad quality, see [0164] lines 3-5 and [0048] lines 1-5). Since Lee also suggests the measurement reporting to of the channel quality (See [0048] lines 3-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the limitation taught by Lee in Ghosh's invention in order to enable adaptive resource allocation based efficient channel measurement update.

2. Regarding Claim 13, Ghosh in view of Lee teaches the method in accordance with claim 12; Lee further teaches that said making of the measurements is performed in the base station or node B (See [0065]), lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the limitation taught by Lee in Ghosh's invention in order to enable the RNC or SRNC to receive the message regarding the channel quality.

3. Regarding claim 14, Ghosh in view of Lee teaches the method in accordance with claim 12, Ghosh further teaches the method wherein said making of the measurements is performed in the subscriber stations or mobile phone, and wherein said method further comprises transmitting the measurements to the base station (See [0026] lines 3-4 and 8-10).

4. Claims 15-27 and 30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over

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Ghosh in view of Lee as applied to claim 14 and further in view of Kroth.

5. Regarding claims 15 and 30, Ghosh in view of Lee discloses the method and the radio communication system in accordance with claims 14 and 29 respectively, Ghosh further teaches the method wherein each of the subscriber stations has a serving radio network controller corresponding thereto which is responsible for configuration of the respective subscriber stations (See [0014]). Ghosh in view of Lee does not explicitly teach the method wherein said method further comprises transmitting a second message from the controlling radio network controller to the serving radio network controller allocated to each of the at least one particular subscriber station. However, Kroth teaches transmitting a second message from the controlling radio network controller to the serving radio network controller allocated to each of the at least one particular subscriber station (See paragraph [0034], lines 11-12). Note that Ghosh discloses that the measurements are performed by each one of the plurality of subscriber's station (Page 5, lines 22-23) wherein said method further comprises transmitting the measurements to the base station (Page 5, lines 19-23).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kroth's limitations with the invention taught by Ghosh in view of Lee because the base-station provides feedback by the provision of the measurements done by the subscriber's station such as pilot strength signal, signal to interference plus noise ratio, and data queue. These latter measurements are reported to the SRNC and therefrom to the corresponding CRNC for appropriate mitigation of low QoS.

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6. Consider claim 16, Ghosh in view of Lee and Kroth discloses the method in accordance with claim 15. Ghosh in view of Lee and Kroth does not explicitly teach the method wherein a specified transmission rate is agreed for each subscriber (note, each subscriber opts for a particular data rate as agreement between the subscriber and the service provider discloses), and wherein said method further comprises checking compliance (e.g. testing or comparing the transmission with data rate according to the subscriber's profile) with the agreed transmission rate during said making of the measurements of the transmission quality. However, because monitoring quality of service involves measuring the real time data transmission rate versus the subscriber's agreement of the data rate or the plan's data rate (measuring and comparing to the threshold of quality transmission as disclosed by Ghosh, claims 4-8 and Kroth, paragraph [0030], lines 3-4), the method as disclosed in Kroth and Ghosh inherently consists of this feature.

7. Regarding claim 17, Ghosh in view of Lee and Kroth teaches the method according to claim 16, Kroth further discloses that the method further comprises: allocating timers to data units to be transmitted; ceasing transmission of the data units after a corresponding timer has elapsed; and checking, during the making of the measurements of the transmission quality, to determine whether a number of elapsed timers relative to a total number of allocated timers (page 3, paragraph [0024], lines 10-15) exceeds a specified threshold value (paragraph [0030], lines 3 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the additional limitation taught by Kroth in Ghosh's invention in view of Lee and Kroth in order to determine the rate of the data frames to be transmitted in accordance with the assigned quality of service.

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8. Regarding claim 18, Ghosh in view of Lee and Kroth teaches the method according to claim 17, Ghosh does not teach that the first message contains at least one of a name of each of the at least one particular subscriber station and how many of the subscriber stations for which the transmission quality was bad. Nonetheless, Lee teaches that the first message contains at least one of a name (e.g. ID, see [0008], lines 5-8, note that the RL parameter or the first message maybe HS-SCCH, see also [0030] lines 1-6) of each of the at least one particular subscriber station and how many of the subscriber stations for which the transmission quality was bad (See [0164] lines 3-5 and [0048] lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the limitation taught by Lee in Ghos's invention in view of Lee and Kroth because it would enable RNC to identify the UE suffering from quality of service that is below satisfactory once reported.

9. Consider claim 19, Ghosh in view of Lee and Kroth teaches the method in accordance with claim 18, Ghosh in view of Lee and Kroth does not teach explicitly the method wherein the second message contains the name of each of the at least one particular subscriber station, however the latter said function is inherent because transmitting the load report to CRNC would require retaining the ID about the particular subscriber station or more whose transmission quality is affected.

10. Regarding claim 20, Ghosh in view of Lee and Kroth teaches the method in accordance with claim 19, Ghosh in view of Lee and Kroth does not explicitly teach that the method further comprising allocating a temporary identification being to the subscriber stations by the

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controlling radio network controller, and wherein the temporary identification is used to name the subscriber stations, nonetheless, allocating a temporary identification to the subscriber station is known in the routing function of CRNC, the temporary ID contains the ID of the subscriber station in addition to the SRNC identifier. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the obvious feature in Ghosh's invention in view of Lee and Kroth in order for the CRNC to address the actual RNC serving the UE when UE is roaming.

11. Regarding claim 21, Ghosh in view of Lee and Kroth teaches the method in accordance with claim 20, Kroth further teaches the method further comprising deriving, by the controlling radio network controller, a suggested solution (see paragraph [0034], line 11) for a change of the configuration of the subscriber stations from the first message, and wherein the second message includes the suggested solution (see paragraph [0034], lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kroth's limitations with the invention taught by Ghosh in view of Lee and Kroth in order to implement the compensation of the QoS in accordance with the change in channel quality.

12. In claim 22, Ghosh in view of Lee and Kroth teaches the method in accordance with claim 21, Kroth further teaches the method wherein the suggested solution contains information on at least one of a possible transmission procedure to a different base station (See paragraph [0041]). Kroth however does not teach the allocation of a dedicated channel for a corresponding one of the at least one particular subscriber station. However, Ghosh teaches the allocation of a

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dedicated channel for a corresponding one of the at least one particular subscriber station (see claim 9-10). The claim would have been obvious because a person of ordinary skill in the art would have been motivated to combine both inventions as disclosed in Kroth and Ghosh to achieve the claimed invention and that there would have been a reasonable expectation of success which is optimizing the transmission of data.

13. Consider claim 23, Ghosh in view of Lee and Kroth teaches the limitation in accordance with claim 15, Kroth further teaches the method comprising deriving, by the controlling radio network controller, a suggested solution (see paragraph [0034], line 11) for a change of the configuration of the subscriber stations from the first message, (see paragraph [0031]), and wherein the second message includes the suggested solution (see paragraph [0034], lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kroth's limitations with the invention taught by Ghosh in view of Lee and Kroth in order to implement the compensation of the QoS in accordance with the change in channel quality.

14. With respect to claims 24 and 26, Ghosh in view of Lee and Kroth discloses the method according to claim 13 and 12 respectively, Kroth further teaches the method wherein each of the subscriber stations has a serving radio network controller corresponding thereto which is responsible for configuration or control of the respective subscriber stations (See figure 1 and paragraph [0034]), and wherein said method further comprises transmitting a second message from the controlling radio network controller to the serving radio network controller allocated to

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each of the at least one particular subscriber station (See paragraph [0034], lines 11-12). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kroth's limitations with the invention taught by Ghosh in view of Lee because the base-station provides feedback by the provision of the measurements done by the subscriber's station such as pilot strength signal, signal to interference plus noise ratio, and data queue. These latter measurements are reported to the SRNC and therefrom to the corresponding CRNC for appropriate mitigation of low QoS.

15. Regarding claims 25 and 27, Ghosh in view of Lee and Kroth teaches the method in accordance with claim 24 and 26 respectively, as mentioned above Kroth further discloses the method comprising deriving, by the controlling radio network controller, a suggested solution for a change of the configuration of the subscriber stations from the first message, and wherein the second message includes the suggested or recommended solution (See paragraph [0034] and [0035]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kroth's limitations with the invention taught by Ghosh in view of Lee and Kroth in order to implement the compensation of the QoS in accordance with the change in channel quality.

Response to Arguments

Applicant's arguments filed 10/29/2009 have been fully considered but they are not persuasive.

Regarding claim 12, the applicant submitted that Ghosh discloses that the UE sends a measurement report to an RNC via a source node B. However, the measurement report message

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includes queue size information and QoS requirements of the packets accumulated in the UE, but not information as to actual QoS and whether QoS requirements are met; the Applicant further adds that Ghosh does not suggest any measurements of transmission quality otherwise being made available to the Node B. The Examiner respectfully disagrees, and presents that in claim 1; it is disclosed taking measurements of transmission quality which could be handled either at the UE or the base station, nowhere in the claim, it is explicitly disclosed that such task is done at either one. Referring to the specification, it is understood from measuring of transmission quality, that an unsatisfactory data rate of transmission from the UEs constitutes a “determining” for transmission quality and whether is adequate in accordance with UEs’ requirements, as can be found in [0025] lines 1-7 and [0026] lines 1-3 in applicant’s published application. This is consistent with Ghosh’s disclosure; a thorough examination concludes that, in Ghosh the UE sends a measurements report that establishes not only common pilot channel strength but also the UE’s requirements of quality transmission as well as transmission queue, the latter being theoretically contiguous to data transmission rate “data rate” achieved. Furthermore, “making the measurements available to the base station” is equivocal to be interpreted rather as either receiving the measurement at the node B or measured at the node B which would not violate the limitation “available at node B”. In this respect, Lee discloses measuring and monitoring the status of user transmission wherein the measurement is available at the node B (See [0146] lines 1-2), additionally, the Examiner directs the Applicant's attention to abstract lines 8-9, and more particularly to [0026] lines 10-14, in which the transmission quality is also measured at node B. Note that noise rise is still within the realm of affected transmission quality in said UE’s. Lee also suggests the same, in [0104], wherein it is disclosed that node B calculates or measures the

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parameter related to the changes in status of radio channel pertaining to the transmitting UE's, note that the measurements are sent to the RNC which could be co-located with the RNC which is "Serving RNC" (See [0114]). In view of these reasons, one of ordinary skill in the art would have been inspired by Lee to modify Ghosh's invention since Ghosh suggests that the measurement be reported to update and then adjust or act upon channel resources in order to maintain QoS requirements. Hence, a prima facie case of obviousness established is maintained since each and every element of claim 12 as amended have been taught by the combined prior art.

Claim 29 is not distinct from claim 12, and has similar language, and hence subject to the same presented reasons for obviousness rejection as claim 12.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISSAM CHAKOUR whose telephone number is (571) 270-5889. The examiner can normally be reached on Monday-Thursday (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Perez Rafael can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/I. C./

Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/

Supervisory Patent Examiner, Art Unit 2617